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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				PE 0401134F: <i>Large Aircraft InfraRed Counter Measures (LAIRCM)</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	17.139	7.438	7.758	-	7.758	5.775	5.924	6.111	6.187	Continuing	Continuing
674942: <i>Large Aircraft Infrared Counter Measures (LAIRCM)</i>	17.139	7.438	7.758	-	7.758	5.775	5.924	6.111	6.187	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

The Cost to Complete and Total Cost for MDAP projects in this program element are documented in the R3. The Cost to Complete and Total Cost on the R2 are entered as "Continuing" and not reflective of the total cost for MDAP projects since the R2 does not account for prior years funding.

A. Mission Description and Budget Item Justification

The Large Aircraft Infrared Countermeasures (LAIRCM) system is an evolutionary acquisition program that provides significantly improved defensive systems capability for DoD aircraft to counter the infrared (IR) man-portable air-defense systems (MANPADS) missile threat. The current LAIRCM system configuration [AN/AAQ-24V] consists of an ultra-violet missile warning sensor (MWS), a laser transmitter assembly, control interface unit (CIU) and processors to detect, track, jam and counter incoming IR missiles. The number of sensors and turrets per aircraft is determined by the size and signature of the aircraft. The system is fully automatic following system power-up. LAIRCM requirements are documented in the multi-command Operational Requirements Document (ORD) – LAIRCM ORD 314-92, validated on 03 Aug 98. The system was first fielded on the C-17 aircraft.

The baseline program development is complete and consists of the small laser transmitter assembly (SLTA), ultra-violet MWS, processor, control interface unit (CIU) and a repeater (on some aircraft) to meet the need for advanced IR countermeasures. The Guardian Laser Transmitter Assembly (GLTA) is an upgrade to the baseline transmitter equipment. First production GLTA delivery occurred in June 08.

Development of the Next Generation Missile Warning System (NexGen MWS) is new hardware that improves capability. Baseline equipment (ultra-violet MWS) will be retrofitted with the NexGen MWS as it becomes available. Developmental test/operational test (DT/OT) was conducted in FY10 with initial operational test and evaluation (IOT&E) in FY11.

LAIRCM upgrades include, but are not limited to hardware and software upgrades and testing of the LAIRCM system to maintain concurrency with new and emerging threats. Future capabilities include engagement reporting (ER), Closed Loop Infrared Countermeasures (CLIRCM) and other emerging capabilities to upgrade/update system threat defeating ability, and development/integration of new LRUs/LRU variants into the current system based on emerging technology and upgrades to the capability of support/test equipment.

LAIRCM program will accomplish group A integration and testing, as well as integration support to incorporate LAIRCM on new platforms, per DoD direction; at the request of AMC, AFSOC, multiple potential tanker aircraft variants, and other federal agency requirements.

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This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.								
B. Program Change Summary (\$ in Millions)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total		
Previous President's Budget		17.227	7.438	7.759	-	7.759		
Current President's Budget		17.139	7.438	7.758	-	7.758		
Total Adjustments		-0.088	-	-0.001	-	-0.001		
• Congressional General Reductions		-	-					
• Congressional Directed Reductions		-	-					
• Congressional Rescissions		-	-					
• Congressional Adds		-	-					
• Congressional Directed Transfers		-	-					
• Reprogrammings		-	-					
• SBIR/STTR Transfer		-	-					
• Other Adjustments		-0.088	-	-0.001	-	-0.001		
Change Summary Explanation								
FY11 Congressional General Reduction of 0.088M in Other Adjustment row.								
FY13 funding decrease is due to higher Department of Defense priorities.								
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: LAIRCM Development				17.139	7.438	7.758	-	7.758
Description: Continue integration of LAIRCM system onto new aircraft for AMC & AFSOC customers.								
FY 2011 Accomplishments:								
Complete LAIRCM integration program onto AMC C-130J. Re-start study/integration of LAIRCM onto AFSOC AC-130U, initiated with FY09 Congressional Add funding. Continue planning/study/integration of AFSOC EC-130J, including trial installation and flight test h/w procurements. Begin development/integration of potential new technologies for new/future LRU/SRUs to be added to the system. Begin development of future infrared countermeasures (FIRCM) capabilities. Continue h/w and s/w upgrade program for current LAIRCM system equipment to new s/w architecture, including additional engagement reporting capability. Continue recurring jam code development and testing program.								
FY 2012 Plans:								

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Complete AFSOC EC-130J and continue AC-130U integration efforts. Continue development/integration of potential new technologies for new/future LRU/SRUs to be added to the system. Continue development of future infrared countermeasures (FIRCM) capabilities. Continue h/w and s/w upgrade program for current LAIRCM system equipment to new s/w architecture, including additional engagement reporting capability. Continue recurring jam code development and testing program.					
<i>FY 2013 Base Plans:</i> Complete AC-130U integration efforts. Continue development/integration of potential new technologies for new/future LRU/SRUs to be added to the system. Continue development of Future Infrared Countermeasures (FIRCM) capabilities. Continue h/w and s/w upgrade program for current LAIRCM system equipment to new s/w architecture, including additional engagement reporting capability. Continue recurring jam code development and testing program.					
Accomplishments/Planned Programs Subtotals	17.139	7.438	7.758	-	7.758

D. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PE 0401134F, APAF, C-17: C-17 <i>LAIRM APAF</i>	220.285	32.672	17.368	0.000	17.368	15.711	16.288	16.223	16.541	Continuing	Continuing
• PE 0401134F, APAF, C-130: <i>C-130 LAIRCM APAF</i>	132.000	154.841	0.000	28.300	28.300	0.000	0.000	0.000	0.000	Continuing	Continuing
• PE 0401134F, APAF, C-5: C-5 <i>LAIRCM APAF</i>	78.522	62.489	3.147	27.983	31.130	5.239	5.379	5.481	5.570	Continuing	Continuing
• PE 0401134F, APAF, C-130J: <i>C-130J LAIRCM APAF</i>	55.094	45.411	8.285	38.100	46.385	8.447	8.712	8.875	9.019	Continuing	Continuing
• PE 0401134F, APAF, HC/ MC-130 Recap: <i>HC/MC-130J</i> <i>LAIRM APAF</i>	0.000	34.000	0.000	46.100	46.100	0.000	0.000	0.000	0.000	Continuing	Continuing

E. Acquisition Strategy

Aircraft integration contracts award to aircraft prime contractor with separate integration support contract awarded to Northrop Grumman Corporation (Rolling Meadows). IR countermeasure upgrades awarded as modifications under the LAIRCM production contract.

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F. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Air Force										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0401134F: Large Aircraft InfraRed Counter Measures (LAIRCM)				PROJECT 674942: Large Aircraft Infrared Counter Measures (LAIRCM)					
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
EC-130J Integration	SS/CPFF	Lockheed Martin:Owego, NY	9.861	-		-		-		-	0.000	9.861	0.000
AC-130U Integration	SS/CPFF	Lockheed Martin:Owego, NY	3.750	0.797	May 2012	2.145	Nov 2012	-		2.145	0.000	6.692	0.000
C-130J Development & Integration	SS/CPAF	Lockheed Martin:Marietta, GA	22.770	-		-		-		-	0.000	22.770	0.000
LAIRCM Hardware and Software upgrades	SS/CPFF	Northrop Grumman:Rolling Meadows, IL	9.259	1.462	Jan 2012	0.600	Nov 2012	-		0.600	Continuing	Continuing	0.000
Subtotal			45.640	2.259		2.745		-		2.745			0.000
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A/C Survivability Division (Program Office)	Various	Various:Various,	0.373	0.443		0.450		-		0.450	Continuing	Continuing	0.000
Subtotal			0.373	0.443		0.450		-		0.450			0.000
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Various Gov't Test Organizations	Various	Various:Various,	3.764	4.736		4.563		-		4.563	Continuing	Continuing	0.000
Subtotal			3.764	4.736		4.563		-		4.563			0.000

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Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	49.777	7.438		7.758		-		7.758			0.000

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
NexGen MWS IOT&E	3	2011	4	2011
NexGen MWS Full Rate Production Decision	2	2012	2	2012
EC-130J Integration	2	2012	3	2013
AC-130U Integration	3	2012	2	2013